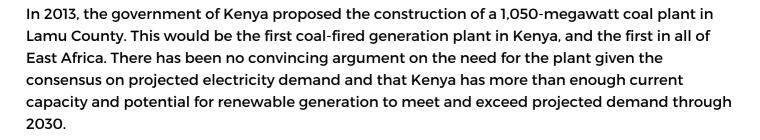
## LAMU COAL PLANT

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The proposed plant also raises issues of compliance with international treaties to which Kenya is a Party.

In 2015, 24% of Kenya's electricity was generated from geothermal, wind, and solar and 34% from Hydro.<sup>1</sup> The country has far from exhausted its renewable resources:

- Kenya has harnessed less than 10% of its geothermal resources and approximately 30% of its hydro potential <sup>2</sup>
- Kenya's daily insolation is equivalent to 250 million tons of oil equivalent <sup>3</sup>
- Wind in Turkana, Marsabit, Ngong, and the Coast can support commercial electricity generation <sup>4</sup>

Even so, a contract for the Lamu Coal Plant was awarded to Amu Power, a special purpose joint venture between Gulf Energy, a petroleum company, and Centum, an investment company, in September 2014. Amu Power's sole project, the Lamu Coal Plant, is to be designed and built by Power China. The plant is owned by the Kenyan government and in order to fuel the plant, Amu Power will import coal primarily from South Africa and Mozambique.<sup>5</sup> The government has plans to mine coal for the plant in nearby Kitui, Kenya – but this development will take an additional six years to get online and requires a railway to be built to transport the coal from the mine to the plant.<sup>6</sup>

The emissions and effluents from the operations of the plants, the 75% of funds coming from foreign investment, and the impact on indigenous peoples in the region are worth evaluating in light of Kenya's commitments to: the United Nations Framework Convention on Climate Change; the Nairobi Convention for the Protection, Management, and Development of the Marine and Coastal Environment of the Western Indian Ocean; the Basel Convention; the Declaration on the Rights of Indigenous Peoples; the African Charter on Human and People's Rights; and the International Covenant on Civil and Political Rights.



<sup>1.</sup> Vision 2030, 'Progress (2016 March): Energy Generation and Distribution' (Vision 2030, 2016) < http://www.vision2030.go.ke/493/progress-2016-march-energygeneration-distribution/ > accessed 15 November 2017

<sup>2.</sup> J.K. Kiplagat, R.Z. Wang, T.X. Li, 'Renewable energy in Kenya: Resource Potential and status of exploitation' (2011) 15(6) RENEW SUST ENERG REV

<sup>&</sup>lt;a href="http://www.sciencedirect.com/science/article/pii/S1364032111001262">http://www.sciencedirect.com/science/article/pii/S1364032111001262</a>> accessed 20 November 2017, 2972

<sup>3.</sup> ibid, 2966

<sup>4.</sup> ibid, 2968

<sup>5.</sup> Kurrent Technologies Ltd, Description of the Project-ESIA Study for 1050MW Coal Fired Power Plant, Lamu County, Kenya (July, 2016) 14

<sup>6.</sup> Kurrent Technologies Ltd, Project Alternatives-ESIA Study for 1050MW Coal Fired Power Plant, Lamu County, Kenya (July, 2016) 2

International Treaties	Relevant Policy	Questions of Compliance
	Article 4(1): In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.	In 2015, 35% of Kenya's installed electricity capacity was generated by fossil fuels. According to a "Long Term Plan" commissioned by the Ministry of Energy and Petroleum, in 2035, 34% of installed capacity will burn fossil fuels.
United Nations Framework Convention on Climate Change, Paris Agreement	Article 4(19): All Parties should strive to formulate and communicate long- term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.	In Kenya's Intended Nationally Defined Contribution, it committed to reduce greenhouse gas emissions by 30% based on business as usual. The operations of the Lamu Coal Plant will increase Kenya's annual greenhouse gas emissions by 6-10%.
		The plant will release 8.8 million tons of CO2e each year which will double the country's current emissions from the energy sector.
		In 2017, the price of electricity generated by solar, wind, and geothermal sources were all less expensive per kilowatt hour than what independent experts project the price of electricity will be from the Lamu Coal Plant.
		The International Renewable Energy Agency calculates that in 2025 the global average price for Offshore Wind will be USD 11¢/kWh; Solar PV USD 6¢/kWh; and Onshore Wind USD 5¢/kWh. Given the cost of coal Q4 2017, electricity from the Lamu Coal Plant will cost USD 16¢/kWh - a price that is unstable due to commodity volatility and will increase as the global price for coal overall continues to rise.
Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean	Article 12: Each contracting party should take all appropriate measures to prevent, reduce the and combat environmental damage in the Convention area, in particular the destruction of marine and coastal ecosystems, caused by engineering activities such as land reclamation and dredging.	The coal plant will cause irreparable environmental damage. It will destroy the coastal ecosystem by eliminating the mangroves, contaminate the marine ecosystem by altering the temperature in the bay thereby killing the fish, and by releasing toxic chemicals into the air and water during construction and operations.
Basel Convention	The Basel Convention is a protocol on liability and compensation for damage resulting from the transboundary movement of a specified list of hazardous wastes and their disposal.	Coal ash contains arsenic, mercury, lead, cadmium, selenium and other toxins filtered out of smokestacks (including mercury) by pollution control equipment - all of which, when stored in surface impoundments or are released into bodies of water - are subject to the Basel Convention.
		The irony with "clean coal" is that when utilities filter the hazardous materials from being smoked into the atmosphere – reducing their air emissions – the pollutants don't disappear. The filtered compounds and metals create more toxic coal ash. For example, ash from fluidized-bed combustors has four-times higher mercury content than coal itself.
	Article 4(2)(c): Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment;	Coal combustion requires coal ash disposals. Amu Power plans to locate the coal ash pond in a flood zone. The pond will be situated on highly permeable soil and rock above a freshwater aquifer used by the local people for drinking water. The pond will be lined with a slowly permeable geomembrane liner - but no barrier is impermeable. The high risk of flooding in the area due to seasonal rains only increases the risk to local residents, wildlife, and marine life.
	Article 4(2)(d): Ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement;	The Environmental and Social Impact Assessment Study commissioned by Amu power has identified site of the Lamu Plant as "high flood risk and vulnerable" and that "flows are likely to cause flooding, water logging and inundation of the floodplains of some of the watersheds of Lamu Coal Power Plant project Kwasasi area. The ESIA does not detail the capacity of water treatment. Heavy rainfall would cause the highly toxic coal ash to be released into Manda Bay and flow out into the Indian Ocean.
Declaration on the Rights of Indigenous Peoples	Article 26(2): Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired;	The plant will have a negative economic, health, and cultural impact on indigenous coastal communities. The operations of a coal plant in Lamu County will deprive people of their traditional livelihoods as emissions and effluents from the plant will contaminate the natural environment. People will no longer be able to rely on the waters for fishing nor the mangroves for their vessels and building materials.
	Article 26(3): States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.	The Swahili and coastal people of Kenya have a traditional communal land tenure system that has not been adjudicated to give them title deeds. As such, they are at a disadvantage when there is a proposed land acquisition. And particularly in this instance, as the operations of a coal plant in Lamu County will also deprive indigenous people of their traditional livelihoods as emissions and effluents from the plant will contaminate the natural environment making it unable to sustain the people who have lived there for centuries.
African Charter on Human and Peoples' Rights	Article 21(5): States parties to the present Charter shall undertake to eliminate all forms of foreign economic exploitation particularly that practiced by international monopolies so as to enable their peoples to fully benefit from the advantages derived from their national resources.	The investment in the plant - 75% of which is foreign from the Inudstrial and Commercial Bank of China - will prevent the indigenous peoples in Lamu county, particularly the Swahili in Lamu and on the coast, from their traditional livelihoods which are dependent upon natural resources of the region. In particular, the coal plan will contaminate the water, destroy the mangroves, and kill the fish upon which they rely both for food and livelihood.
International Covenant on Civil and Political Rights	Article 1(2): All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.	ICBC has committed USD 900 million to finance the coal plant which will create a significant debt burden. Plant operations will deprive the coastal people in Lamu county of their livelihoods. The pollution from smokestacks and hot water released into waterways will significantly damage the marine life in the region. 95% of the local people depend on the fishing industry (fishing, boat making, etc) for their sustenance and subsistence.